



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/594,310

09/27/2006

Marzio Alessi

09952.0075

3800

22852

7590

04/21/2010

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER
LLP

901 NEW YORK AVENUE, NW
WASHINGTON, DC 20001-4413

EXAMINER

EDWARDS, LINGLAN E

ART UNIT

PAPER NUMBER

2449

MAIL DATE

DELIVERY MODE

04/21/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/594,310	Applicant(s) ALESSI ET AL.	
	Examiner Linglan Edwards	Art Unit 2449	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-34 is/are pending in the application.
- 4a) Of the above claim(s) 29-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-28 and 34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2010 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is in respond to applicants' amendments filed on January 14, 2010. Claims 18-34 are pending, of which claims 29-33 have been withdrawn from consideration.

Examiner's Note

2. Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Drawings

3. The drawings were received on January 14, 2010. These drawings are acceptable.

Response to Arguments

4. Applicant's following arguments filed on January 14, 2010 have been fully considered but they are not persuasive. In substance, Applicant argues that:

Regarding the rejection of **claim 34** under 35 U.S.C. 101, amended claim 34 which recites a computer-readable medium encoded with a computer program product is statutory;

The examiner respectfully disagrees. The United States Patent and Trademark Office (USPTO) is obliged to give claims their broadest reasonable interpretation consistent with the specification during proceedings before the USPTO. *See In re Zletz*, 893 F.2d 319 (Fed. Cir. 1989) (during patent examination the pending claims must be interpreted as broadly as their terms reasonable allow). The broadest reasonable interpretation of a claim drawn to a computer readable medium (also called machine readable medium and other such variations) typically covers forms of non-transitory tangible media and transitory propagating signals *per se* in view of the ordinary and customary meaning of computer readable media, particularly when the specification is silent. See MPEP 2111.01. When the broadest reasonable interpretation of a claim covers a signal *per se*, the claim must be rejected under 35 U.S.C. 101 as covering non-statutory subject matter. A claim drawn to such a computer readable medium that covers both transitory and non-transitory embodiments may be amended to narrow the claim to cover only statutory embodiments to avoid a rejection under 35 U.S.C. 101 by adding the limitation “non-transitory” to the claim.

5. Applicant's arguments with respect to amended claims have been fully considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. **Claim 34** is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 34 recite a computer-readable medium. The broadest reasonable interpretation of a claim drawn to a computer usable medium typically covers forms of non-transitory tangible media and transitory propagating signals *per se* in view of the ordinary and customary meaning of computer-usable media, particularly when the specification is silent. See MPEP 2111.01. It is noted that propagation or transporting medium can also take the form of carrier waves, i.e., electromagnetic waves that can be modulated, as in frequency, amplitude, or phase, to transmit information signals. Additionally, propagation medium can take the form of acoustic or light waves, such as those generated during radio wave and infrared data communications. As claims 34 as written, it is not limited to a statutory subject matter and is therefore non-statutory.

A claim drawn to such a computer readable medium that covers both transitory and non-transitory embodiments may be amended to narrow the claim to cover only statutory embodiments to avoid a rejection under 35 U.S.C. 101 by adding the limitation “non-transitory” to the claim.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 18 and 34** are rejected under 35 U.S.C. 103(a) as being unpatentable over **US PG-PUB No. 2002/0010798 A1 to Ben-Shaul et al.** (Cited in previous office action, hereinafter **Ben-Shaul**) in view of **US PG-PUB No. 2002/0073165 A1 to McNulty et al.** (hereinafter **McNulty**) and **US PG-PUB No. 2003/0028564 A1 to Sanfilippo** (Cited in previous office action, hereinafter **Sanfilippo**).

As per **claim 18**, **Ben-Shaul** disclosed a method for controlling distribution of media contents over a network, wherein said contents comprise distributed contents available at surrogate servers (**Ben-Shaul**: paragraph [0003], “edge servers” correspond to surrogate servers) and remaining contents that are not available at the surrogate servers (**Ben-Shaul**: paragraph [0048], the function of the edge server is for providing content obtained from the original/central server, the edge server performs active updates, which means it constantly obtain new content from the original server; that new content corresponds to the “remaining contents that are not available at the surrogate servers”, further, [0072] teaches that the original web server contains the first version of content, the edge server

(surrogate server) contains the second version of content, [0083] disclosed that the edge server contains a subset of content from the original server; further, [0085] teaches that, updating edge server including obtaining content from the original server that is not available in the edge server) comprising the steps of:

identifying contents eligible for distribution from the remaining contents (**Ben-Shaul**: paragraph [0085], updating resource in the first version (i.e. in the original server) that are absent in the second version (i.e. in the edge server));

making at least one of the identified contents available for distribution at said surrogate servers (**Ben-Shaul**: paragraph [0072], second version of the web content stored and made available at the edge server (i.e. surrogate server), [0085], when the edge server is updated with the addition content from the first version, the content will be available for distribution at the edge servers).

Ben-Shaul does not teach categorizing content in the original servers, however,

McNulty disclosed a system and method that provides categorized content at content server (**McNulty**: paragraph [0010], [0012]); **Ben-Shaul** and **McNulty** are analogous art because they are from the same field of endeavor for network communications, more specifically, network content providing, it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the system of **Ben-Shaul** to incorporate the categorized content providing from **McNulty**, the motivation being for increased system efficiency, because categorization provides more customized content and thereby reduce unnecessary communication;

Ben-Shaul further teaches associating contents with predefined categories based on semantics affinity (**Ben-Shaul**: paragraph [0063], the example of when user request for a cook book, the server return a list of cook books, and information regarding local food and cookware stores, indicates that contents are associated with predefined categories based on semantics affinity; and paragraph [0072], second version of the content derived from the origin web server); one ordinary skill in the art would recognize that such association method can be equally used for categorizing content at the original server;

Although **Ben-Shaul-McNulty** does not explicitly disclose using a reference content to categorize additional content based on semantics distance, in an analogous art in network communications, **Sanfilippo** disclosed a method and system where additional content are categorized based on semantics affinity with reference content, where the semantics affinity is calculated as the distance between the additional content and the reference content (**Sanfilippo**: page 10, claim 27 text); it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the system of **Ben-Shaul-McNulty** to further incorporate the categorizing additional content based on semantic distance from **Sanfilippo**, the motivation being for increased system efficiency and ease of use, because how to categorize content is just a matter of implementation choice.

As per **claim 34**, **Ben-Shaul-McNulty-Sanfilippo** disclosed a computer readable medium encoded with a computer program product loadable into a memory of at

Art Unit: 2449

least one computer, the computer program product comprising software code portions for performing the method of claim 18 (the rationale of rejection and reasons of obviousness have been noted in the rejection of claim 1 above and applicable herein).

10. **Claims 19-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ben-Shaul** in view of **McNulty** and **Sanfilippo** as applied to claim 18 above, and further in view of **US Pat. No. 6,829,613 B1** to **Liddy** (Cited in previous office action, hereinafter **Liddy**).

As per **claim 19**, **Ben-Shaul-McNulty-Sanfilippo** disclosed the method according to claim 18; although **Ben-Shaul-McNulty-Sanfilippo** does not explicitly disclose the step of calculating semantics affinity comprising step of involving the use of data mining or artificial intelligence mechanisms, in an analogous art in electronic content providing, **Liddy** disclosed a method and system that calculating semantics affinity involves the use of artificial intelligence mechanisms (**Liddy**: col. 13, line 61 - col. 14, line 7, "decision tree" is an artificial intelligence mechanism), it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the system of **Ben-Shaul-McNulty-Sanfilippo** to further incorporate the using of artificial intelligence mechanisms for calculating semantics affinity from **Liddy**, the motivation being for increase ease of use, because what method to use for calculating semantics affinity is just a matter of implementation choice.

As per **claim 20**, **Ben-Shaul-McNulty-Sanfilippo-Liddy** disclosed the method according to claim 19, wherein said mechanisms comprise at least a mechanism selected from neural networks, fuzzy logic and decision trees (**Liddy**: col. 13, line 61 - col. 14, line 7, decision tree).

11. **Claim 21** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Ben-Shaul** in view of **McNulty** and **Sanfilippo** as applied to claim 18 above, and further in view of **US PG-PUB No. 2002/0062300 A1 to Asadov et al.** (Cited in previous office action, hereinafter **Asadov**).

As per **claim 21**, **Ben-Shaul-McNulty-Sanfilippo** disclosed the method according to claim 18; although **Ben-Shaul-McNulty-Sanfilippo** does not explicitly disclose using of searching engines in the step of identifying a reference content, in an analogous art in electronic content providing, **Asadov** disclosed a method and system where search engines are used for identifying document by content (**Asadov**: paragraph [0020], [0050], search agents are used for identifying document by semantics); it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the system of **Ben-Shaul-McNulty-Sanfilippo** to further incorporate the search agents (search engines) from **Asadov**, the motivation being for improved system efficiency.

Art Unit: 2449

12. **Claim 22** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Ben-Shaul** in view of **Sanfilippo** and **Asadov**, and further in view of **US PG-PUB No. 2002/0188681 A1** to **Gruen et al.** (hereinafter **Gruen**).

As per **claim 22**, **Ben-Shaul-McNulty-Sanfilippo** disclosed the method according to claim 18, wherein said step of identifying for each category at least a reference content comprises the steps of:

identifying a set of reference contents by using search engines (**Asadov**: paragraph [0020], [0050], search agents are used for identifying document by semantics; see motivation in the rejection of claim 21 above);

Although **Ben-Shaul-McNulty-Sanfilippo-Asadov** does not explicitly disclose calculating a central reference content, in a analogous art in providing electronic content, **Gruen** disclosed a method and system where a centroid document (i.e. central reference content) is calculated for a set of documents (**Gruen**: paragraph [0039], computing a centroid document for a cluster of documents); it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the system of **Ben-Shaul-McNulty-Sanfilippo-Asadov** to further incorporate the calculating central reference content from **Gruen**, the motivation being for increased system efficiency and accuracy for categorizing documents.

13. **Claim 23-24** and **26-28** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ben-Shaul** in view of **Sanfilippo** as applied to claim 18 above, and

Art Unit: 2449

further in view of **US PG-PUB No. 2002/0087659 A1** to **Chapman et al.** (Cited in previous office action, hereinafter **Chapman**).

As per **claim 23**, **Ben-Shaul-McNulty-Sanfilippo** disclosed the method according to claim 18, wherein said step of. associating said identified contents to said predefined categories based on semantics affinity with said reference content, comprises the steps of:

identifying contents requested (**Ben-Shaul**: paragraph [0062], user request a cook book); and

associating each of said requested content with said predefined categories based on semantics affinity with said reference content, said semantics affinity being calculated as the distance of each of said distributed contents to said at least a reference content (**Ben-Shaul**: paragraph [0062], the local edge add to the content regarding local food and cookware stores which is semantically related to the user request);

Although **Ben-Shaul-McNulty-Sanfilippo** does not explicitly disclose the association being made with content already distributed, in an analogous art in providing electronic content, **Chapman** disclosed a method where contents that have already been distributed are used for associating additional contents for distribution (**Chapman**: paragraph [0004], the choice of what gets cached is based on a guess at future requests or observations of previous transactions); it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the system of **Ben-Shaul-McNulty-Sanfilippo** to further

Art Unit: 2449

incorporate the concept of prediction future request based on previous transactions, the motivation being to improve system efficiency by caching contents that are more likely to be requested in the future.

As per **claim 24, Ben-Shaul-McNulty-Sanfilippo-Chapman** disclosed the method according to claim 23; although **Ben-Shaul-McNulty-Sanfilippo-Chapman** does not explicitly disclose using two separate databases for storing classification information, **Ben-Shaul** disclosed using two separate databases for storing content provided (**Ben-Shaul**: paragraph [0072], origin web server storage and edge server storage); it would have been obvious to one of ordinary skill in the art, to also apply the separated databases concept for storing classification information, the motivation being for increased data access efficiency.

As per **claim 26, Ben-Shaul-McNulty-Sanfilippo-Chapman** disclosed the method according to claim 24, wherein said step of making at least one of the identified contents associated with said selected predefined category available for distribution at said surrogate servers comprises the step of:

extracting from said second database contents information related to said at least one identified content (**Ben-Shaul**: paragraph [0063], extract information regarding local food and cookware stores when a cook book is requested).

As per **claim 27**, **Ben-Shaul-McNulty-Sanfilippo-Chapman** disclosed the method according to claim 24 comprising the steps of:

identifying identified information comprising at least usage information provided by said surrogate servers (**Ben-Shaul**: paragraph [0054], statistics collection and reporting; and **Day**: col. 2, line 48-52, a different transmission mode is selected based on the frequency of requests by receivers, i.e., usage information is collected);

matching said additional information with said category information provided by said first database (**Ben-Shaul**: paragraph [0063], finding related information, i.e., matching content requested with category information; same matching method can be used for content frequently requested as well);

generating at least one class template comprising said matched information (**Ben-Shaul**: paragraph [0070], distribution policies change dynamically based on characteristic of differentiated content; the discloses identifies "class template" as "content distribution events/actions based on triggered policies for distributing the contents or for modifying the distribution policies);

adding to said class template said contents information provided by said second database (**Ben-Shaul**: paragraph [0069] [0070], policies (and new policies) are stored on origin site, a database has to be inherently included for the storage); and

forwarding said at least one modified class template to a distribution system
(**Ben-Shaul**: paragraph [0069], the edge servers get updates on their policies from the origin site, i.e., the new policies are forwarded to the edge servers from the origin site).

As per **claim 28**, **Ben-Shaul-McNulty-Sanfilippo-Chapman** disclosed the method according to claim 27 wherein said step of adding to said class template said contents information provided by said second database comprises the steps of:

accessing a class template repository (**Ben-Shaul**: paragraph [0069] [0070], policies (i.e. classes) (and new policies) are stored on origin site, a database has to be inherently included for the storage, the policy repository has to be accessed for the change to be recorded); and

modifying said class template according to said content information (**Ben-Shaul**: paragraph [0069] [0070], policies (and new policies) are stored on origin site, a database has to be inherently included for the storage).

14. **Claim 25** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Ben-Shaul** in view of **Sanfilippo** and **Chapman** as applied to claims 23-24 above, and further in view of **US Pat. No. 7,222,185 B1 to Day** (Cited in previous office action, hereinafter **Day**).

As per **claim 25**, **Ben-Shaul-McNulty-Sanfilippo-Chapman** disclosed the method according to claim 24; although **Ben-Shaul-McNulty-Sanfilippo-Chapman** does not explicitly disclose the using of interest threshold for representing at least of a frequency of user request for a given content, in an analogous art in electronic content providing, **Day** disclosed a method and system where an interest threshold representative at least of a frequency of user requests for a given content is used (**Day**: col. 2, line 48-52, a different transmission mode is selected based on the frequency of requests by receivers); it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the system of **Ben-Shaul-McNulty-Sanfilippo-Chapman** to further incorporate the determining of user interest threshold from **Day**, to enable the system to define an interest threshold representative at least of a frequency of user requests for a given content, and extract and provide content of same category when said interest threshold is exceeded, the motivation being to increase the system efficiency by increase the availability of content more frequently requested by users.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linglan Edwards whose telephone number is (571) 270-5440. The examiner can normally be reached on 6:00AM-3:30PM EST Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ashokkumar B. Patel can be reached on (571) 272-3972. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2449

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L.E./

Linglan Edwards, Ph.D.
Examiner
Art Unit 2449

/Ashok B. Patel/
Primary Examiner, Art Unit 2449